

PRELIMINARY ISSUE

Work Order ID 64161

Thursday, November 25, 2010 4:02:04 PM

Page 1

Item ID: D4298-007

Accept

Revision ID: PRELIM

Item Name: Machined Outer Assembly

Start Date: 11/25/2010 Start Qty: 1.00

Required Date: 12/3/2010 Req'd Qty: 1.00

Reference:

Cust Item ID:

Customer:



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4298	PA-A

100



Bandsaw

Jeaspa Bandsaw

Memo

0.00

0.00

amb 10/12/07

105



HAAS 1

HAAS CNC vertical machine #1

Memo

0.00

0.00

amb 10/12/07

110



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

0.00

amb 10/12/07

PA 10/12/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____


NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



NOTE: Date & initial all entries




Work Order ID 64161

Thursday, November 25, 2010 4:02:04 PM

Page 2

Item ID: D4298-007 Accept  Setup Start 
Revision ID: PRELIM Stop 
Item Name: Machined Outer Assembly
Start Date: 11/25/2010 Start Qty: 1.00  Cust Item ID:
Required Date: 12/3/2010 Req'd Qty: 1.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00		B.A	10/12/13	1	0		
130  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00		dl	10/12/13	1	0		
140  Powdercoat Powder Coating	Black Sandtex(Ref:4.3.5.7) per QSI005 4.3 M112388. Memo POWDER COAT: Start Time: 8:40 Oven Temperature: 320° Finish Time: 9:10.	0.00 0.00				1		BR 10-12-14.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



NOTE: Date & initial all entries




Work Order ID 64161

Thursday, November 25, 2010 4:02:04 PM

Page 3

Item ID: D4298-007 Accept  Setup Start 
Revision ID: PRELIM Stop 
Item Name: Machined Outer Assembly
Start Date: 11/25/2010 Start Qty: 1.00  Cust Item ID:
Required Date: 12/3/2010 Req'd Qty: 1.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150  QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00		274 10/12/11		1	0		
160  Small Fab Small Fab	1- Assemble as per dwg Memo	0.00 0.00							
170  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		- inspect to ENA-02 Dry only Scrub 1/5 @					

Ep 10/12/15 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			




NOTE: Date & initial all entries



Work Order ID 64161



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Page 4

Item ID: D4298-007 Accept  Setup Start 
Revision ID: PRELIM Stop 
Item Name: Machined Outer Assembly
Start Date: 11/25/2010 Start Qty: 1.00  Cust Item ID:
Required Date: 12/3/2010 Req'd Qty: 1.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  Packaging Packaging	Identify as per dwg & Stock Location: <u>GA</u> Memo <u>B64166</u>	0.00 0.00		<u>SA 10/12/15</u>		<u>1</u>			
200  QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

MF 10-12-15

POSITIVE RECALL
EFFECTIVE 10.11.29 AUTH th
RELEASED [Signature] DATE 10.12.17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, November 25, 2010 4:02:11 PM

Page 1

Work Order ID: 64161

Parent Item: D4298-007

Parent Item Name: Machined Outer Assembly

Start Date: 11/25/2010

Required Date: 12/3/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP revA 10.11.24 new issue EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.250X01.25 0		Purchased	No			100	f	27.2945	0.33	0.347368			



6061-T6 Bar 1.25 x 1.25

Location	Loc Qty	Loc Code
MAT	20	
116135	20	
MAT03	7.294450526	
106259	7.06921053	
110001	0.22524	

D4298-024

Manufactured No

160 Each 0.0000 1



Serrated Adjustment Washer

MS20426AD3 Purchased No

160 Each 5,984.000 1



RIVET

Location	Loc Qty	Loc Code
ST316	5984	
104374	1984	
110398	4000	

1105055

347 10/12/07

1 SA 10/12/15

1 SA 10/12/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 64161
Description: OUTER		Part Number: D 4298-019
Inspection Dwg: D4298 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.91	$\pm .036$	3.910	—		Vern	ML-7
3.31	$\pm .030$	3.310	—		"	"
55°	$\pm 1/2^\circ$	55°	—		Comb square	ML-CBB
Ø.130	$\pm .005$ $\pm .001$	Ø.130	—		Vern	ML-7
Ø.257	$\pm .006$ $\pm .001$	Ø.258	—		"	"
.75	$\pm .030$	.752	—		"	"
1.13	$\pm .030$	1.130	—		"	"
.09	$\pm .030$	.089	—		"	"
1.72	$\pm .030$	1.720	—		"	"
.78	$\pm .030$	.78	—		"	"
Ø.160	$\pm .005$ $\pm .001$	Ø.162	—		"	"
.41	$\pm .030$	.410	—		"	"
.21	$\pm .030$	.208	—		"	"
.38	$\pm .030$	.383	—		"	"
2.58	$\pm .030$	2.585	—		"	"
1.32	$\pm .030$	1.320	—		"	"
.800	$\pm .030$	.802	—		"	"
.40	$\pm .030$	.400	—		"	"
.060	$\pm .010$	.063	—		RA26	Vern
.030	$\pm .010$	.027	✓		RA26	Vern

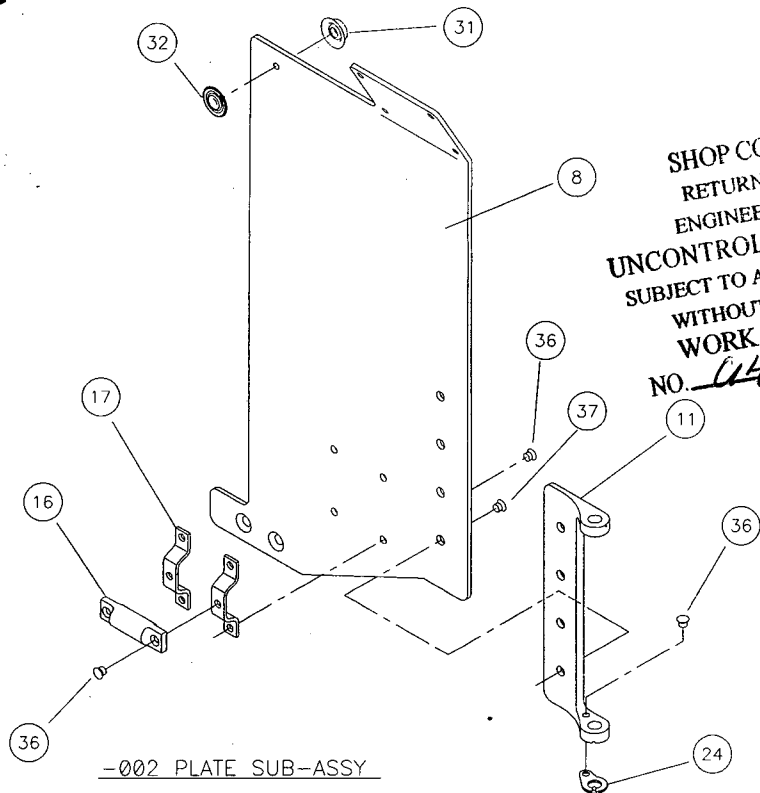
Measured by: <i>gm</i>
Date: 10/12/07

Audited by: H.A
Date: 10/12/13

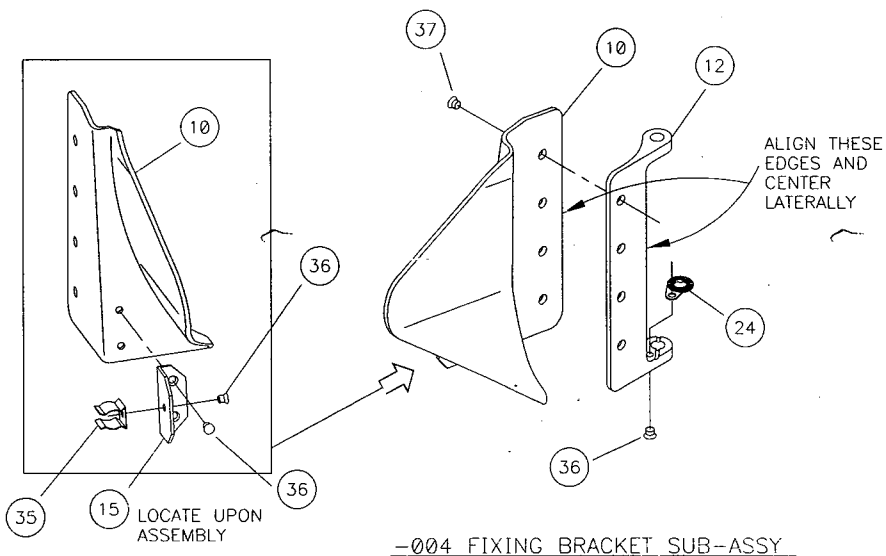
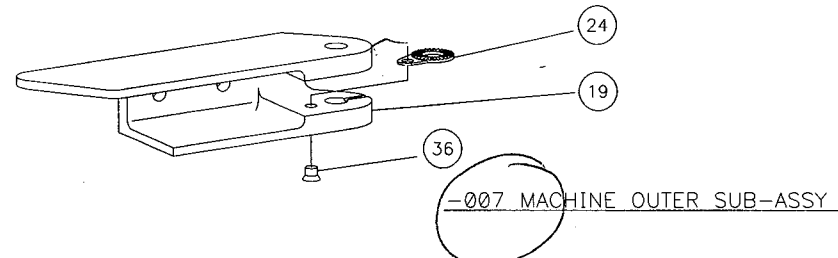
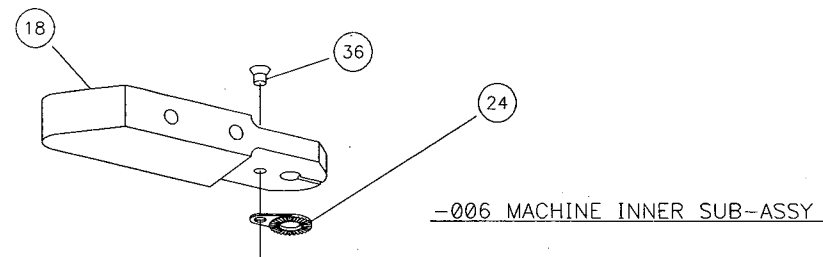
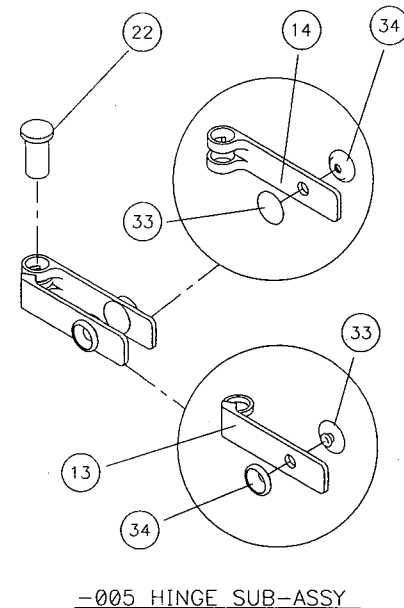
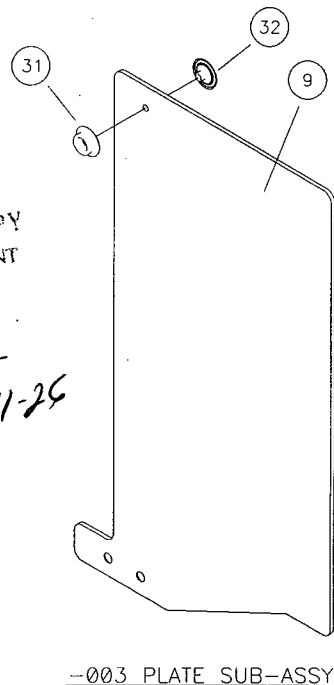
Preliminary Approval:
Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15



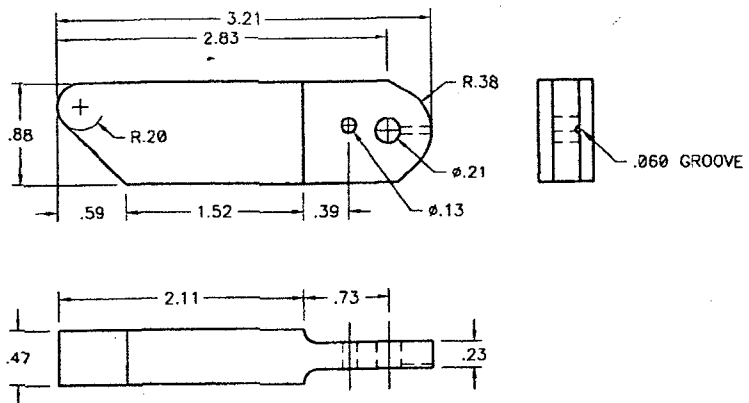
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 64111
PR 10-11-25



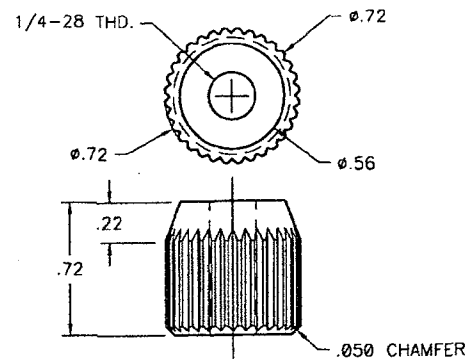
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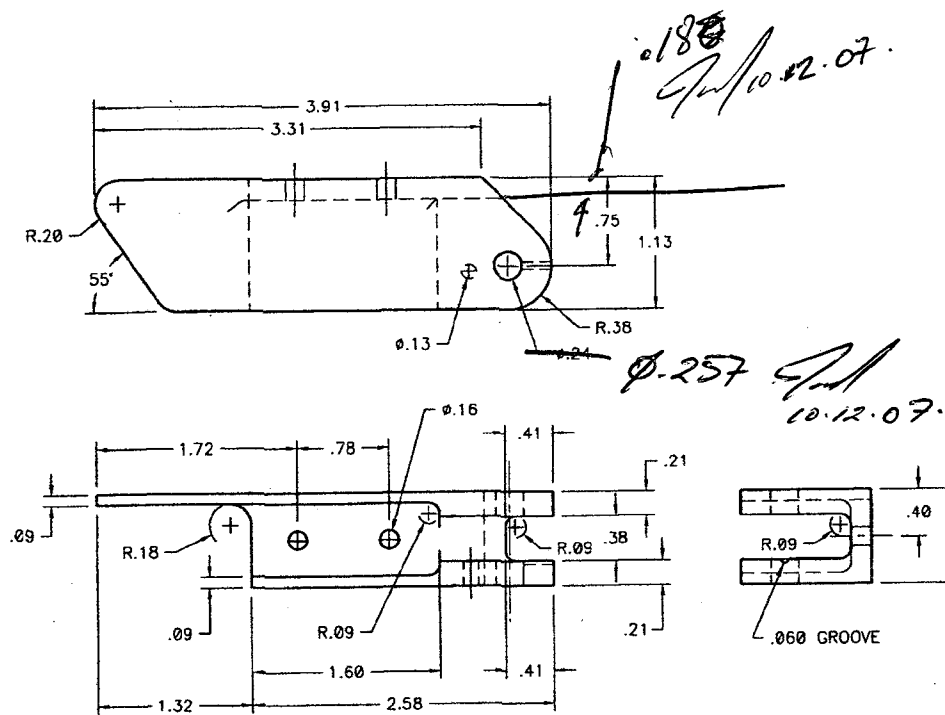
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SINGLE PILOT VFR CHART HOLDER, AW139	C	13939-1-290 SHT 3 OF 10	A



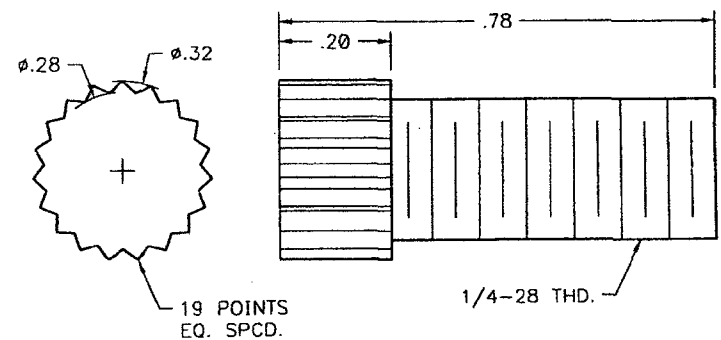
-018 MACHINED INNER



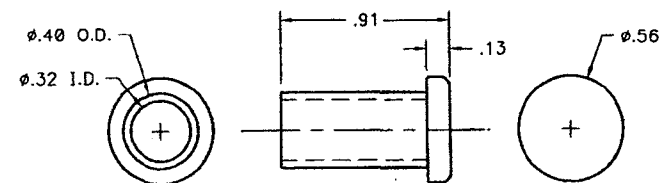
-020 KNOB



-019 MACHINED OUTER



-021 MACHINED BOLT



-022 PIN TOPPER

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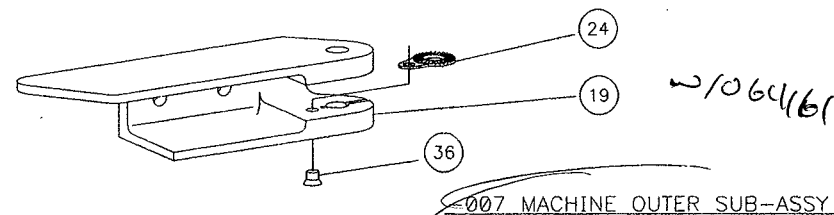
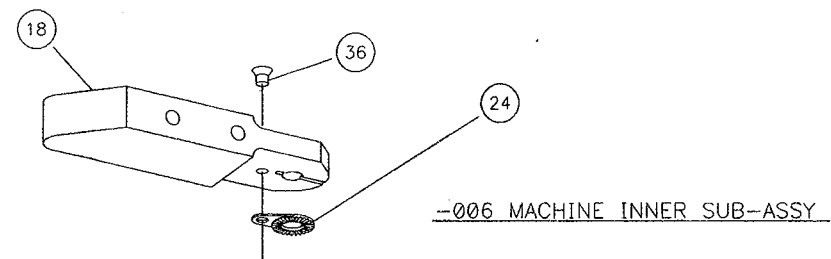
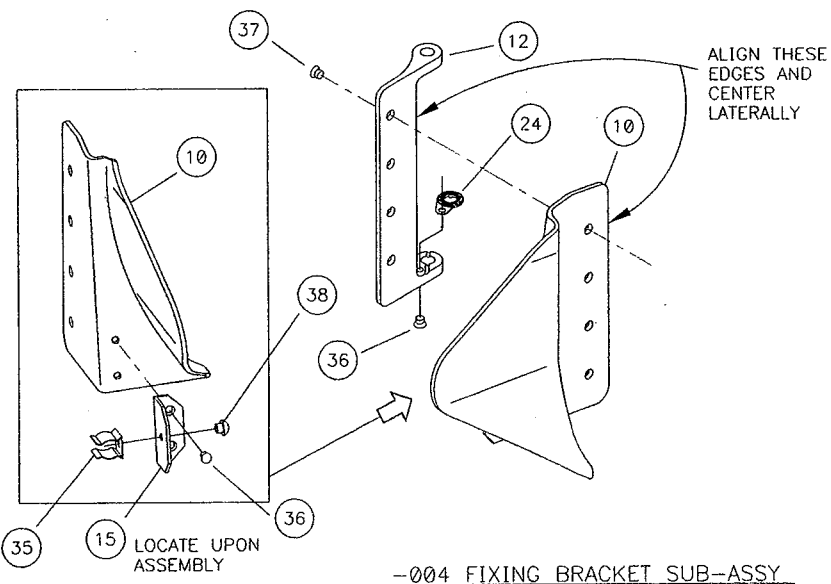
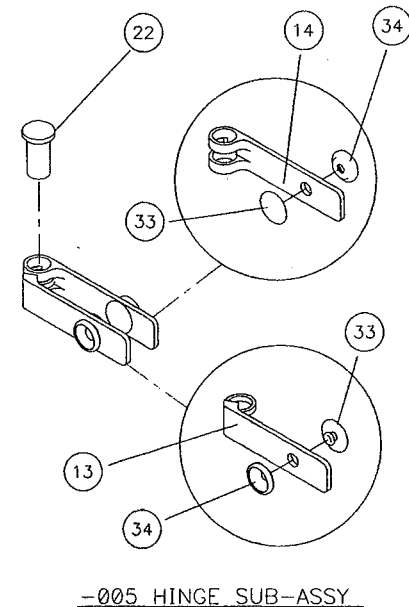
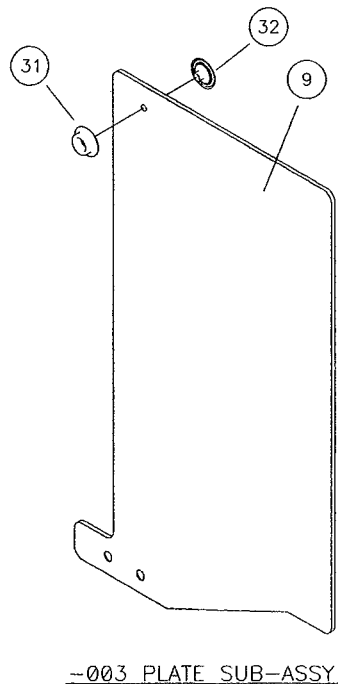
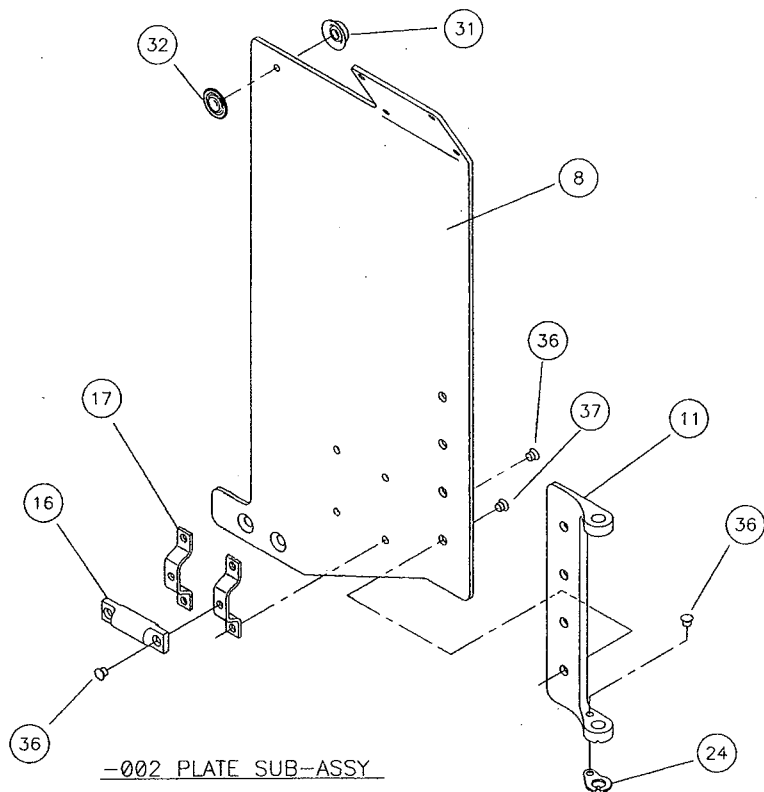
TITLE	SIZE	DWG. NO.	REV.
SINGLE PILOT VFR CHART HOLDER, AW139	C	13939-1-290 SHT 9 OF 10	A

DART P/N	ERA P/N	Description
D4298-001	13939-1-290-001	CHART HOLDER ASSY
D4298-002	13939-1-290-002	PLATE SUB-ASSY
D4298-003	13939-1-290-003	PLATE SUB-ASSY
D4298-004	13939-1-290-004	FIXING BRACKET SUB-ASSY
D4298-005	13939-1-290-005	HINGE SUB-ASSY
D4298-006	13939-1-290-006	MACHINED INNER SUB-ASSY
D4298-007	13939-1-290-007	MACHINED OUTER SUB-ASSY
D4298-008	13939-1-290-008	PLATE
D4298-009	13939-1-290-009	PLATE
D4298-010	13939-1-290-010	FIXING BRACKET
D4298-011	13939-1-290-011	HINGE
D4298-012	13939-1-290-012	HINGE
D4298-013	13939-1-290-013	HINGE
D4298-014	13939-1-290-014	HINGE
D4298-015	13939-1-290-015	CLIP ANGLE
D4298-016	13939-1-290-016	CLIP STOP
D4298-017	13939-1-290-017	CLIP STOP MOUNT
D4298-018	13939-1-290-018	MACHINED INNER
D4298-019	13939-1-290-019	MACHINED OUTER
D4298-020	13939-1-290-020	KNOB
D4298-021	13939-1-290-021	MACHINE BOLT
D4298-022	13939-1-290-022	PIN TOPPER
D4298-023	13939-1-290-023	PIN
D4298-024	13939-1-290-024	SERRATED ADJUSTMENT WASHER

WRO
6/16/11

RELEASED
2010-12-15
[Signature]

A	NEW ISSUE	SC	10.12.15
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4298	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	CHART HOLDER (AW 139)	NTS
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